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June 4, 2009

The Honorable Michael J. Copps, Acting Chairman
Federal Communications Commission
445 Twelfth Street SW
Washington, DC 20554

RE: A National Broadband Plan for Our Future, GN Docket No. 09-51

Dear Honorable Copps:

This responds to the Federal Communications Commission (FCC) Notice of Inquiry released April 8, 2009 (NOI) regarding a national broadband plan on behalf of the Global e-Sustainability Initiative (GeSI).* In particular, these comments respond to the FCC inquiries made in Section 6 (Energy Efficiency), paragraphs 86 and 87 of the NOI. GeSI believes that a national broadband policy can help the United States improve energy efficiency, reduce greenhouse gas emissions, decrease dependence on foreign oil and at the same time stimulate the economy and create new jobs.

Fossil fuels – coal, oil and natural gas – supply 85% of the energy consumed in the United States. The U.S. imports about 58% of the total oil it uses, much of it from countries and regions that are unstable. Oil imports grew to 4.7 billion barrels in 2008 and cost about $450B. Consumption of all fossil fuels last year resulted in about 6 billion tons of carbon emissions in the U.S.

Many experts believe America needs to reduce carbon emissions by 60 to 80 percent in the next 40 years in order to avoid significant environmental issues associated with global warming. The EPA recently declared that CO_2 emissions endanger human health. Increased focus on reducing carbon emissions and energy security has spurred intense interest in replacing fossil fuels with renewable energy sources.

The American Solar Energy Society, however, calculates that even with a full-court press on renewable energy the U.S. can achieve less than half of the fossil

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fuel reduction that is needed. The majority of the reduction must be delivered by energy efficiency.

That broadband and information technologies have boosted economic productivity is well understood. Less recognized but equally well documented is that broadband and IT have also transformed the relationship between economic production and energy consumption. The American Council for an Energy Efficient Economy has calculated that "for every extra kilowatt-hour of electricity consumed by ICT, the U.S. economy's energy savings has increased 10 times" in the last 20 years.

In the U.S. addendum to SMART 2020: Enabling the Low Carbon Economy in the Information Age, commissioned by the Global eSustainability Initiative (GeSI) and The Climate Group, the Boston Consulting Group calculated that annual CO_2 emissions in the U.S. can be reduced 22% in the next decade through the concerted application of broadband and IT in four areas:

- *Smart power grids* – reduce CO_2 by up to 480M metric tons. Smart power grids involve putting a two-way communications network overlay on top of the electric grid to improve transmission efficiency, better enable bringing renewable energy sources onto the grid, and enable better real-time management of electricity consumption. The fastest way to achieve a smart grid is to apply the capabilities of the country's wireline and wireless network providers to the grid.
- *Smart buildings* – reduce CO_2 by 440M metric tons. Creating a smart building infrastructure means putting intelligence and broadband capability into homes, commercial buildings, and factories to improve the ability to manage their energy consumption.
- *Smart transportation* – reduce CO_2 by 360M metric tons. Achievement of this goal calls for employing intelligent transportation systems and fleet management systems and building the infrastructure to support plug-in hybrid vehicles, as well as providing incentives for the development of more efficient traditional vehicles and transportation technology systems.
- *Travel substitution* programs – reduce CO_2 by 130M metric tons. This initiative means encouraging the use of broadband and related ICT technology for telework, flexible work and virtual meetings to reduce the need for travel by both road and air.

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The grand total of a 22% CO_2 reduction translates into gross fuel and energy savings of $240B, or a reduction of 36% in imported oil.

The full 22% reduction can be achieved, however, when no material barriers exist to every household and business being connected to the Internet. That's why policies that do two things are important: 1) focus on deploying broadband to the remaining 10 million homes in predominantly rural areas of the country that today have no broadband options, and 2) entice, encourage and help the more than 40 million U.S. households that, today, don't even subscribe to *dial-up* Internet access to connect to the broadband Internet in the near future.

Expanding the penetration of broadband to more homes in America will also help create jobs and stimulate the economy. Recent analysis by the Information Technology & Innovation Foundation (ITIF) found that an investment of $30 billion in America's digital infrastructure would create or retain 949,000 U.S. jobs, plus spur creation of an additional 500,000 small business jobs.

We urge the Commission to craft a national broadband policy that provides broadband options to those rural areas where none now exist by addressing the economic challenges facing providers who might serve these locations and the challenges that reduce internet access adoption where the service currently exists. These include challenges associated with computer literacy, lack of PC ownership or other devices, lack of perceived relevancy to people's lives, and inability to pay for service.

A national broadband policy can help the United States improve energy efficiency, reduce greenhouse gas emissions, decrease dependence on foreign oil and at the same time stimulate the economy and create new jobs.

Sincerely,

Luis Neves
Chairperson of the Global e-Sustainability Initiative

cc: FCC Competition Wireless Division, cpdcopies@fcc.gov
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About GeSI (Global e-Sustainability Initiative)
GeSI (www.gesi.org) is an international strategic partnership of ICT companies and industry associations committed to creating and promoting technologies and practices that foster economic, environmental, and social sustainability and drive economic growth and productivity. Formed in 2001, GeSI fosters global and open cooperation, informs the public of its members' voluntary actions to improve their sustainability performance and promotes technologies that foster sustainable development. Current members of GeSI are: Alcatel-Lucent, AT&T, Belgacom, Bell Canada, BT, Cisco, Deutsche Telekom, Ericsson, European Telecommunication Network Operators Association, France Telecom, Fujitsu Siemens, HP, Huawei, KPN, Motorola, Microsoft, Nokia, Nokia Siemens Networks, Nortel, RIM, Sprint, Sun, Telecom Italia, Telefónica, Verizon and Vodafone.

Associate members are Carbon Disclosure Project and World Wildlife Fund. It partners with three organizations: United Nations Environment Program (UNEP), the International Telecommunications Union (ITU) and the World Business Council for Sustainable Development (WBCSD).

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